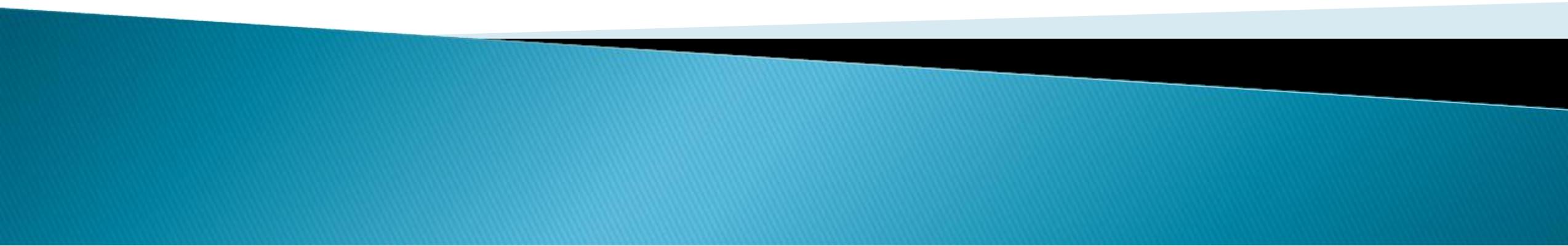


Unit 15: Managing Business Activities for Achieving Results

Lesson 3

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September 28, 2016



Learning Outcome 1

- ▶ Learning Objectives LO1:
 - ▶ Understand the importance of business processes in delivering outcomes based upon business goals and objectives:
 - AC1.1 evaluate the interrelationship between the different processes and functions of the organisation
 - AC1.2 justify the methodology to be used to map processes to the organisation's goals and objectives
 - AC1.3 evaluate the output of the process and the quality gateways
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In This Session

- ▶ LO 1 Understand the importance of business processes in delivering outcomes based upon business goals and objectives
 - AC1.3 Evaluate the output of the process and the quality gateways
 - ▶ Assessment Criteria
 - ▶ Review Questions
 - ▶ References
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Introduction

- ▶ In the previous notes we spoke to the mapping of processes to the organisation goals and objectives. This process will result in an output which should lead to improvement in the organisation. One of the tools used in the process is the quality gateway which ensure that each activity meets the requirement, to maintain quality.
 - ▶ It is therefore important to understand what these concepts mean and the process for each.
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Process Output

- ▶ The amount of energy, work, goods, or services produced by a machine, factory, company, or an individual in a period (businessdictionary.com, 2016).
- ▶ Outputs relate to "what we do."
- ▶ According to fundsforngos.org (2012) outputs are those results which are achieved immediately after implementing an activity. For example, if we are mapping the processes for an online order made by a customer, at the end there would be a flowchart should all the activities that take place before the customer gets the good or service. So, this is an output the project has achieved and it is achieved right after the conclusion of the process map.

Process Map

- ▶ In the last class, we discussed process mapping.
 - ▶ To recap, Process mapping helps represent work processes visually and identify problem areas and opportunities for process improvement (thefis.org, 2015). It provides a common understanding of the entire process and specific roles and contributions of process participants.
 - ▶ Lets now look at how to analyse a process map and what it is that one should look for?
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Analyse Process Maps

- Review process map and look for:
 - Redundant activities
 - Delays between steps
 - Unnecessary process steps
 - Role or responsibility ambiguity
 - Bottlenecks (backlogs) in the process
 - Endless “do-loops” where rework is common
 - Activity time (lapse of time to complete a given step)
 - Cycle time (total time elapsed from first to last step)
 - Activity flows that go back and forth repeatedly between players
- Segment and group the steps of the process map and select an appropriate measure for each segment
- Complete a causal analysis on the inputs to your process
 - Determine whether one input or another is generating problems

Source: Subramaniam (2009)

Evaluate Process Performance

- Identify where and what to measure
 - Depicts how process currently works
 - Helps to figure out where to set up measures
 - Tool to begin studying the process

 - Methods to measure processes
 - Pareto charts
 - Process behavior charts
 - Cause-and-effect diagrams
 - Process modeling and simulation
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Source: Subramaniam (2009)



Core Team Review - Process Measures

- Serve as the basis to understand the performance of the process
- Show the occurrence and extent of problems in the process
- Assist in diagnosing process inefficiencies
- Help to determine why problems occur
- Help in identifying how to make process improvements
- Allow for the study of the interrelationships between events and among players in the process
- Gauge the results of changes made to the process

Source: Subramaniam (2009)



Examples – Process Measures

- Number of unscheduled repairs
- Number of facility deficiencies
- Problem resolution time of help desk requests
- Percent of billing transactions processed with errors
- Percent of notification memos sent out within 1 week
- Type and location of occurrence of security violations
- Time between customer order and delivery of product
- Cycle time from customer request to providing service
- Percent “errors” found in radioactive materials inventory

Source: Subramaniam (2009)

Quality Gateway

- ▶ The Quality Gateway ensures a rigorous specification by testing each requirement for completeness, correctness, measurability, absence of ambiguity, and several other attributes before allowing the requirement to be added to the specification (Robertson and Robertson, 2006).
 - ▶ Requirements are the foundation for all that is to follow in the product development cycle. It therefore stands to reason that the requirements must be correct before they are given to the designers/developers.
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Quality Gateway con't

- ▶ The Quality Gateway (Figure 1) tests the requirements. It is a single point that every requirement must pass through before it can become a part of the specification.
 - ▶ Quality Gateways are normally set up so that one or two people, probably the lead requirements analyst and a tester, are the only people authorized to pass requirements through the gateway.
 - ▶ Working together, they check each requirement for completeness, relevance, testability, coherency, traceability, and several other qualities before they allow it to become part of the specification.
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Quality Gateway Process

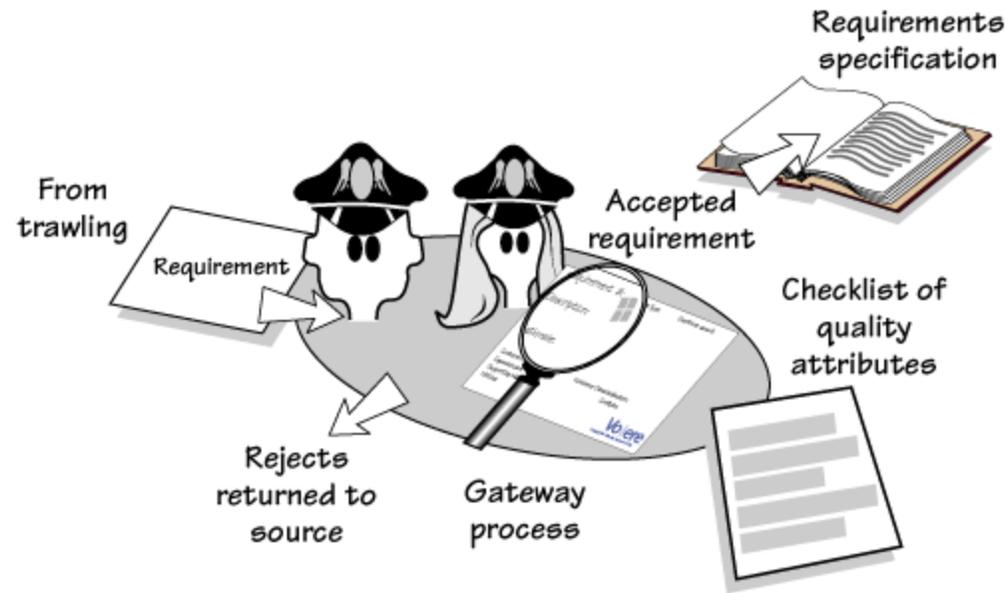


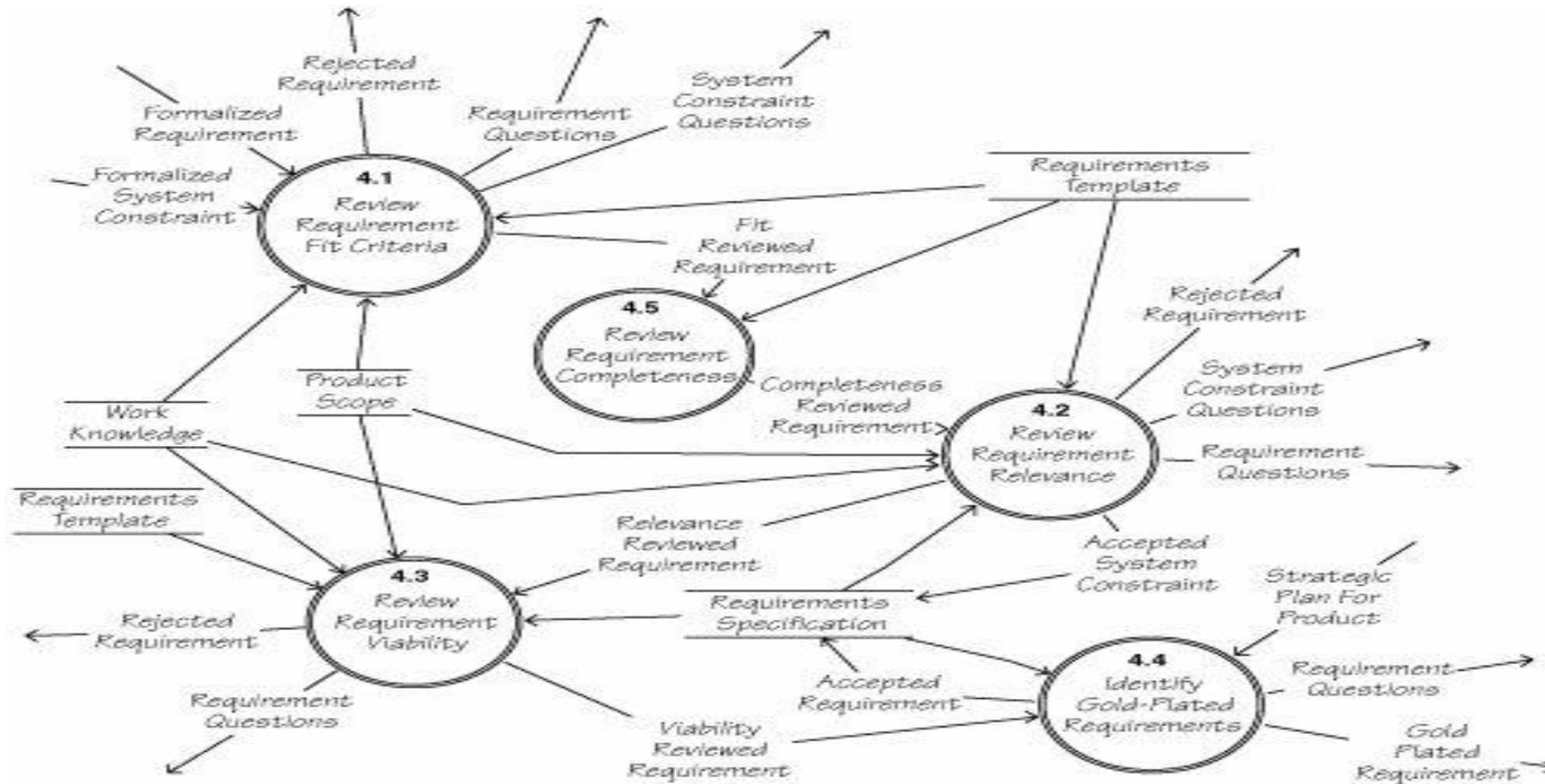
Figure 1

Using the Quality Gateway

- ▶ According to Urbain (n.d) the gateway tests individual requirements to assess whether they meet the following criteria:
 - Completeness
 - Traceability
 - Consistency
 - Relevancy
 - Correctness
 - Ambiguity
 - Viability
 - Being solution-bound

Read further at <http://jayurbain.com/msoe/se3821/slides/se3821-quality-gateway-Ch11-L11.pdf>

Diagram of Quality Gateway



Read: <http://flylib.com/books/en/4.445.1.289/1/> for full detail

Conclusion

- ▶ Often times the outputs of one process are the inputs of another, and if your system is rather complex, keeping tabs on how they're all interrelated may prove to be a challenge. Flowcharts serve as a useful tool for understanding and visually representing how all of these processes are interconnected. Having completed the process map and using the quality gateway process, your output should meet all the requirements has indicated.
- ▶ You must have defined quality objectives such as meeting a percent yield, manufacturing a specific number of units, or meeting set turnaround-times, so that you can measure the success in certain areas. Sometimes an indirect measure, like an internal auditing program, is the only way to determine whether or not a process is under control. Regardless of the process, one way or another its success must be measured.

Review Questions

- ▶ Discuss two benefits of the Process Measures?
 - ▶ What is a Quality Gateway and discuss how does this help to ensure quality is maintained in developing new products in an organisation?
 - ▶ True or False – Once a requirement is tested through the quality gateway, it is accepted in the specification.
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Further readings

- ▶ http://www.slideshare.net/anandsubramaniam/process-mapping?next_slideshow=1
- ▶ <http://flylib.com/books/en/4.445.1.204/1/>

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- ▶ Urbain, Jay (n.d.) *Software Requirements and Specification: Quality Gateway* retrieved from <http://jayurbain.com/msoe/se3821/slides/se3821-quality-gateway-Ch11-L11.pdf>